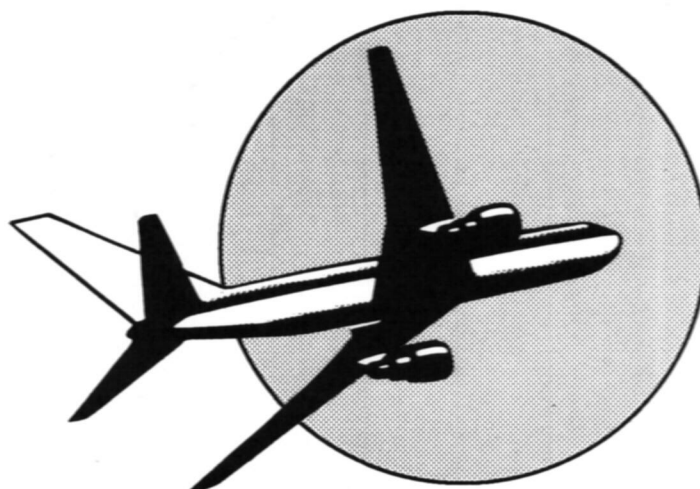


AERONAUTICS DIVISION
PROGRESS REPORT
1989-90



ARIZONA DEPARTMENT OF TRANSPORTATION

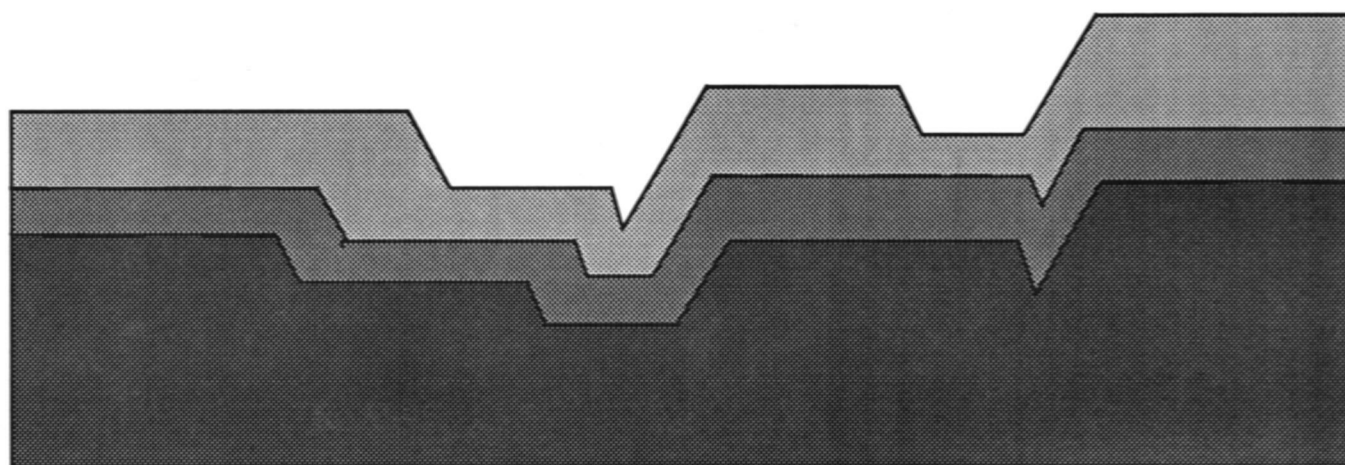


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Charles Lindbergh Visits Tucson - 1927

HISTORY

The history of the Arizona Department of Transportation Aeronautics Division began with the creation of the Arizona Aviation Authority in March of 1950. The Authority originally consisted of an unpaid board of five members serving three year terms. The primary purpose of the board was to advise the Governor and the legislature on aviation matters. In May of 1955, a director was appointed. The Authority started monthly publication of a newsletter in 1956, and an airmarking program to aid in cross-country navigation was initiated in 1958. In 1959, the

Authority began to assist communities in developing airfields. In 1962, the legislature created the Arizona Department of Aeronautics with a seven member board, and appropriated funds to assist in construction of a Grand Canyon National Park Airport. Construction began in 1963, and the airport officially opened two years later.

In 1974, the Departments of Aeronautics, Highways, and Motor Vehicles were combined to form the present-day Arizona Department of Transportation.

Arizona's Aeronautics Directors

1955 - 1975 James Vercillino

1975 - 1975 John Burns

1975 - 1978 John Walters

1978 - 1987 Ascencion (Sonny) Najera

1987 - 1988 Jack Christopherson

1988 - Gary Adams

AUTHORITY AND RESPONSIBILITY

The Arizona Department of Transportation is composed of five divisions; Aeronautics, Highways, Transportation Planning, Motor Vehicles and Administrative Services. The Aeronautics Division is charged by State law to: encourage and advance the safe and orderly development of aviation in the State; assemble and distribute, to the public, information relating to aviation; represent the State on issues of routing and rate schedules concerning commercial airline traffic; accept federal and other monies for airport development or air navigation facilities; ensure that the Grand Canyon National Park Airport is operated and maintained; license aircraft

dealers; register non-airline aircraft within the State and make recommendations on legislative and policy issues. For statutory references, see Arizona Revised Statutes, Title 28, Chapter 12.

The Aeronautics Division is organized along functional lines of responsibility. In June, 1990, the Division realigned certain functions, with planning and air service coming under the Airport Development Program Administrator, and aviation safety and education joining administration and aviation revenue under the Aviation Program Administrator. The new organizational structure of the Division is shown in the chart below.

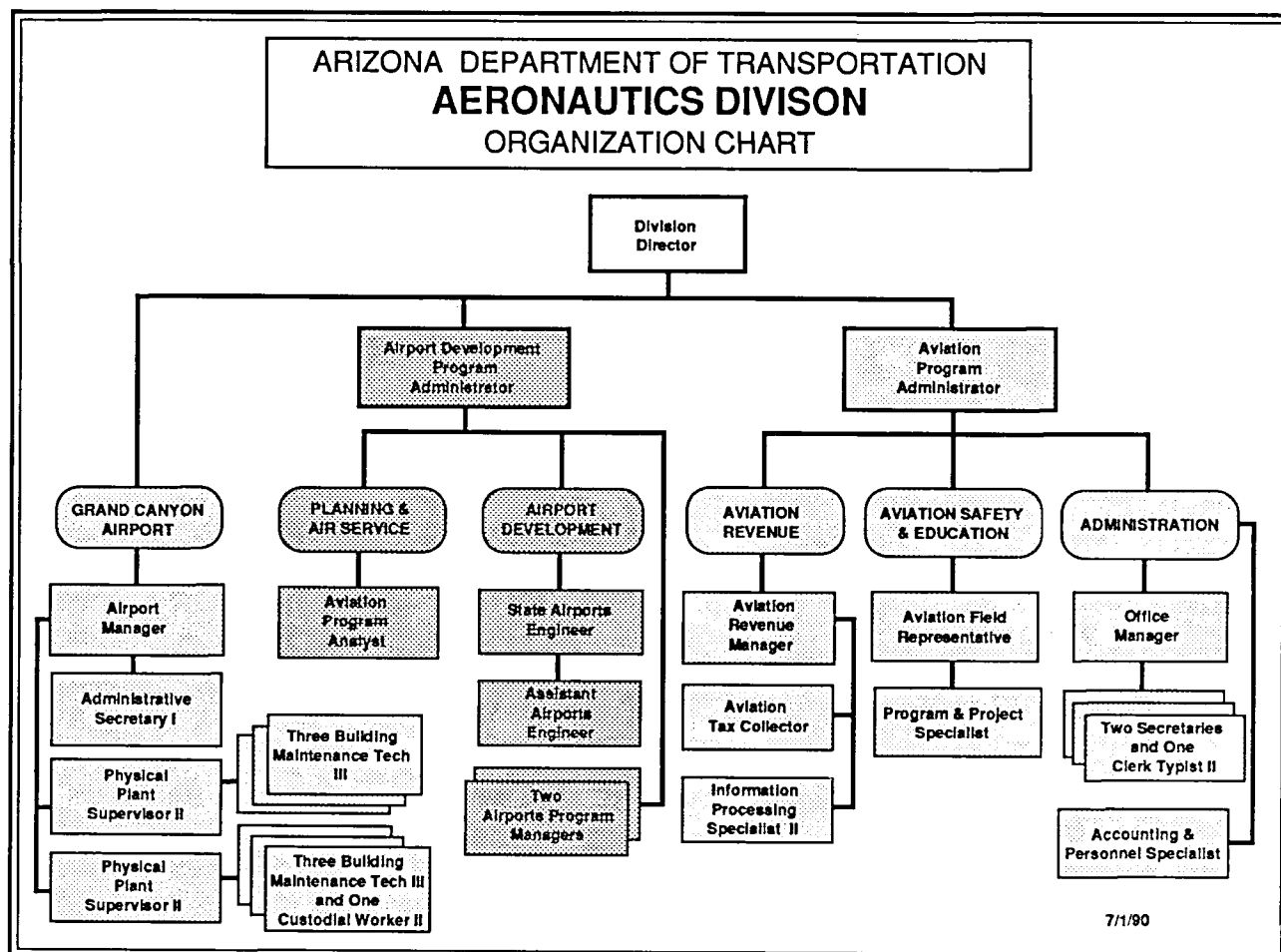


Figure 1

ARIZONA AIRPORT SYSTEM

Arizona's State Airport System directly connects the State's communities, and provides an essential link with the national systems of airspace and airports. It is considered desirable to provide the general public with no more than a thirty minute driving time to a public use airport facility. In Arizona, there are 189 airports and 92 heliports registered with the Federal Aviation Administration (FAA). A primary system of 57 airports provides service to 88% of the population. Of the 57 primary system airports, 49 are publicly owned, while 5 are Indian-controlled and 3 are privately owned.

Primary airports are those airports which have:

- Ten or more based aircraft or 2,000 or more annual operations;

- Scheduled air service by an air carrier or commuter airline on a regular basis; or
- Projections to meet the above criteria within ten years.

Of the 279 facilities, there are 90 heliports or helistops currently listed by the FAA in Arizona. At present, all are private-restricted facilities.

Capital improvements for active airport facilities are financed by a combination of generally available sources: federal funds, state funds and local funds. Federal funds are generated by aviation users and administered back to airports through the Federal Airport Improvement Program. For Federal funding, airports are categorized as shown in table 1.

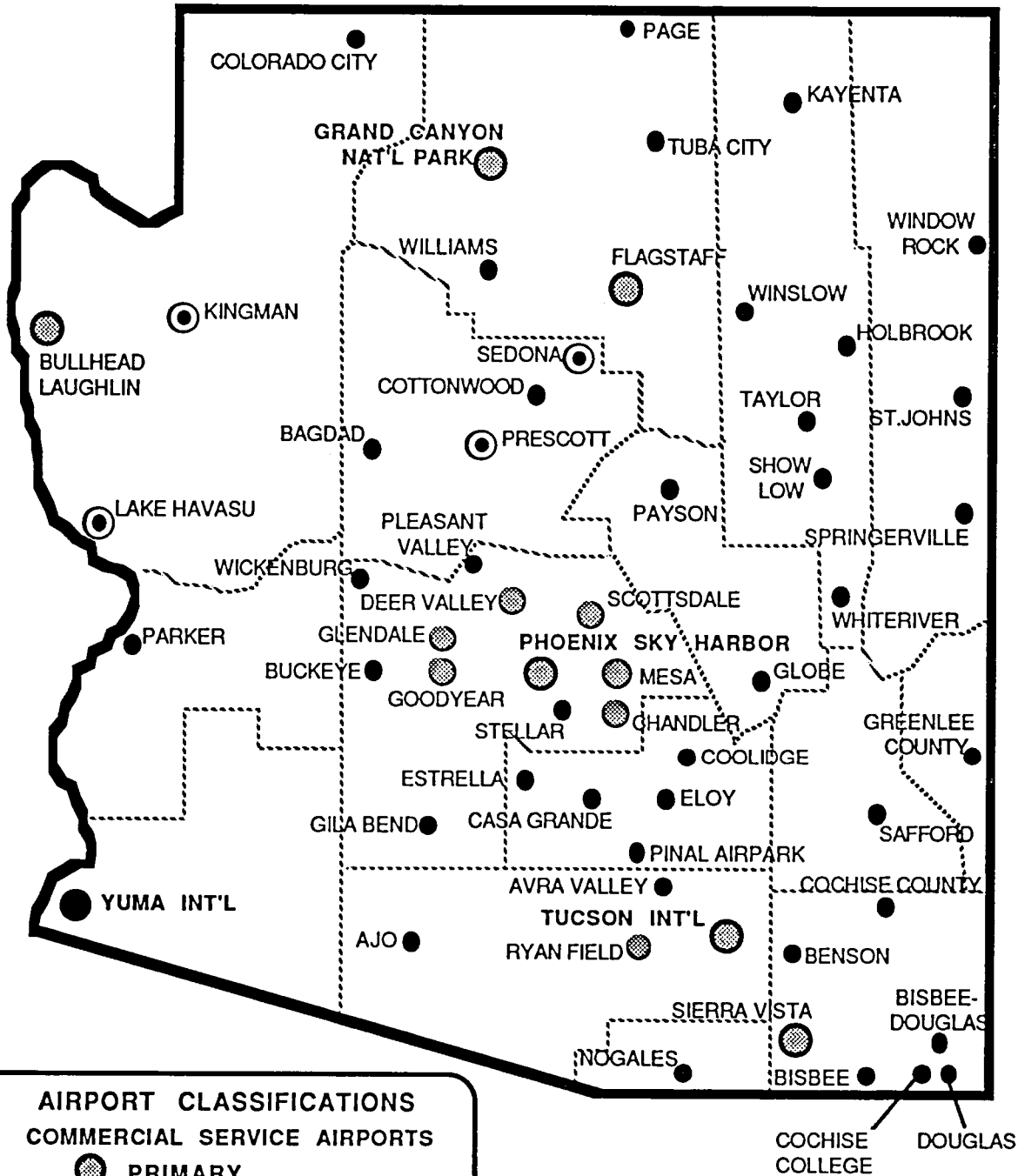
ARIZONA AIRPORT SYSTEM FACILITIES BY TYPE

	Primary	Secondary
Primary Commercial Service		
Airports served by scheduled airlines enplaning 10,000 or more passengers annually.	7	
Non-Primary Commercial Service		
Airports served by scheduled airlines enplaning 2500 or more passengers annually.	5	
Reliever		
Airports which relieve congestion at a commercial service airport and provide additional general aviation access to the community.	6	
General Aviation		
Airports used for general aviation purposes.	38	21
TOTAL SYSTEM AIRPORTS	57	21

Table 1

STATE OF ARIZONA

PRIMARY AIRPORT SYSTEM



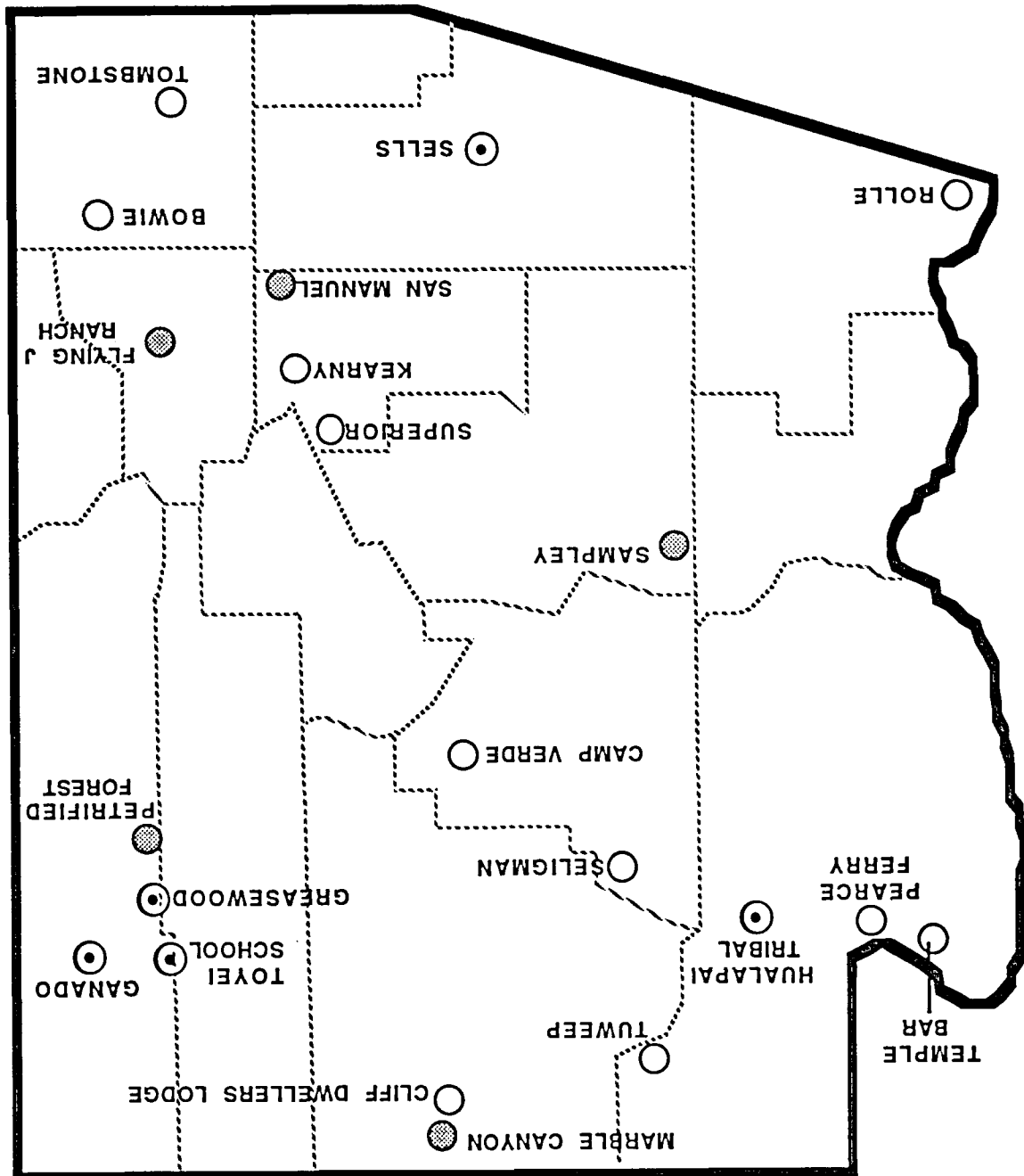
1990

Aeronautics Div. 6/30/90

1990

Secondary System Definition: All public use facilities not in the State's Primary System.

AIRPORT OWNERSHIP
○ PUBLIC ● PRIVATE ○ INDIAN



STATE OF ARIZONA
SECONDARY AIRPORT SYSTEM

ADMINISTRATION



This section is responsible for the day-to-day operation of the Division. The activities of the Division Director and Aviation Program Administrator are included under this section. The Administrative Section is continually involved with a wide spectrum of aviation issues which range from answering inquiries from the public to involvement in national issues of major significance to the aviation community.

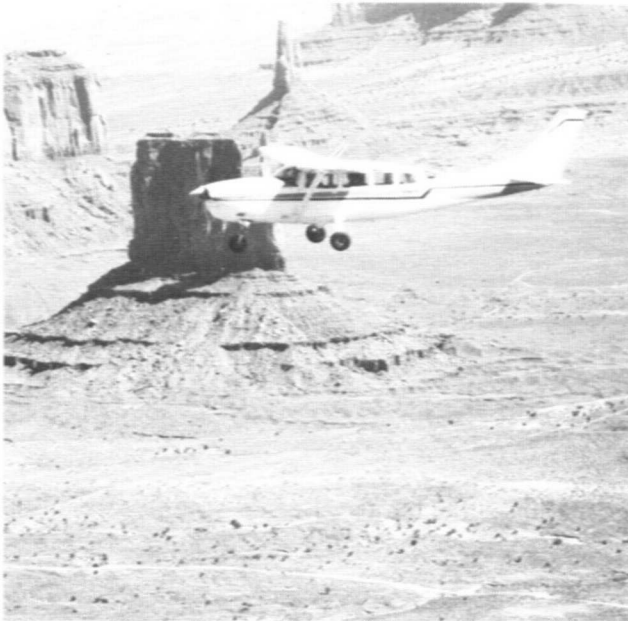
The Division is an active member of the National Association of State Aviation Officials (NASAO). Division personnel continually meet with the FAA's management staff on issues affecting Arizona regarding aviation weather, contract tower operations; heliport and airport construction funding, Part 77 obstacle criteria and Federal/State relationships on various aviation matters. The Division Director is co-chairman of the Arizona Airspace Utilization Committee. This committee was effective in achieving an unprecedented degree of user input into the final configuration of the Phoenix Terminal Control Area, implemented on

January 11, 1990. Also, the Division through the NASAO organization has attempted to strengthen working relationships with the National Air Transport Association; Airport Operators Council International, Aircraft Owners and Pilots Association, and American Association of Airport Executives. The Division Director has also been active in renewal efforts before Congress for such programs as the Federal Airport Improvement Program



and the Essential Air Service Program. The Aviation Program Administrator manages the Administrative Section, is responsible for coordinating all legal and regulatory matters, and legislative and rulemaking functions for the Division, as well as the administration of the Grand Canyon National Park Airport. The Division participates and makes presentations at fall and spring conferences of the Arizona Airports Association.

The section continued to operate the aviation data base and management information system which was started in 1984. The management information system was enhanced dur-



ing the year. The Division has automated through a network of personal computers many of its administrative activities. Work has continued on coordinating the automation of the FAA's 5010 data base and field inspection program with Arizona becoming the first state to receive approval from the FAA to electronically supply 5010 information.

The Administrative Section is responsible for providing support staff for the operational sections, including budget preparation, accounting and fiscal controls, management policy and direction. Also provided are secre-



tarial and clerical support, records management and personnel services within the Division. This section closely monitors all expenditures from the State Aviation Fund.

The State Aviation Fund expenditures are approved through an annual budget cycle by the State Legislature. The Legislature approves an administrative budget with the remaining available funds appropriated in a lump sum for airport construction and development. The Transportation Board, through public hearings and a priority rating system, approves individual airport construction projects as published in the Five-Year Airport and Highway Construction Program. (See Airport Development Section for details.)



Table 2

**AERONAUTICS DIVISION
ADMINISTRATION
REVENUE AND EXPENDITURES**

	1985-86	1986-87	1987-88	1988-89	1989-90
REVENUE					
Flight Property Tax	\$0	\$819,870	\$3,331,480	\$6,864,000	\$8,885,300
Aviation Fuel Tax	\$401,030	\$444,310	\$306,770	\$502,760	\$530,510
Aircraft Lieu Tax	\$2,567,490	\$1,297,330	\$1,162,980	\$1,147,170	\$1,288,750
Aircraft Registration Fees	\$30,120	\$28,650	\$27,500	\$26,960	\$24,750
Miscellaneous & Investments	\$827,510	\$544,490	\$393,460	\$498,640	\$1,028,110
TOTAL	\$3,826,150	\$3,134,650	\$5,222,190	\$9,039,530	\$11,757,400
Percent Increase	11.9%	-18.1%	66.6%	73.1%	30.1%
EXPENDITURES					
ADMINISTRATIVE					
Full Time Employees	15	15	15	18	18
Personal Services	\$340,700	\$321,390	\$323,500	\$347,070	\$379,030
Employee Related Expenses	\$70,100	\$61,130	\$61,390	\$77,470	\$65,750
Professional Services	\$17,200	\$9,540	\$52,430	\$70,400	\$38,020
Travel In-State	\$15,300	\$7,840	\$12,630	\$21,440	\$23,120
Travel Out-of-State	\$9,400	\$7,530	\$5,390	\$5,770	\$6,940
Other Operating Expenses	\$49,400	\$57,080	\$65,610	\$43,490	\$65,810
Capital Equipment	\$15,200	\$7,130	\$31,030	\$23,890	\$42,400
Reimburse Highway Fund	\$9,900	\$31,910	\$79,460	\$58,980	\$55,320
TOTAL ADMINISTRATIVE	\$527,200	\$503,550	\$631,440	\$648,510	\$676,390
Percent Increase	-0.9%	-4.5%	25.4%	2.7%	4.3%
AIRPORT DEVELOPMENT	\$3,073,590	\$2,520,100	\$3,629,700	\$2,648,217	\$4,632,100
Miscellaneous	\$0	\$6,550	\$0	\$0	\$0
TOTAL EXPENDITURES	\$3,600,790	\$3,030,200	\$4,261,140	\$3,296,720	\$5,308,490
NET INCOME (LOSS)	\$225,360	\$104,450	\$961,050	\$5,742,810	\$6,448,910

Source: Arizona Department of Transportation Aeronautics Division
Unaudited Financial Records

AVIATION REVENUE



The Aviation Revenue section is responsible for collection of all general aviation aircraft registration fees and lieu tax in the State; the monitoring, forecasting and assisting in the collection of various other revenues for the State Aviation Fund, and the licensing of aircraft dealers.

The lieu tax is one-half percent of the average fair market value of the aircraft. The division uses the Aircraft Bluebook Price Digest as its main valuation source on most aircraft. Registration fees and taxes must be paid annually by the last day of February or within sixty days after entry into the State. Aircraft owned by a State licensed Aircraft Dealer in the Dealership name are exempt from the lieu tax if the aircraft is not used commercially and is held for resale only. All Aircraft dealers must post a surety bond in the amount of \$10,000. A cash deposit of \$10,000 may be placed on deposit with the State Treasurer in lieu of a bond. A non-resident may base his aircraft in the State for up to ninety days in a calendar year without registering. No tax can be assessed less than twenty dollars a year except for non-residents subject to the tax.

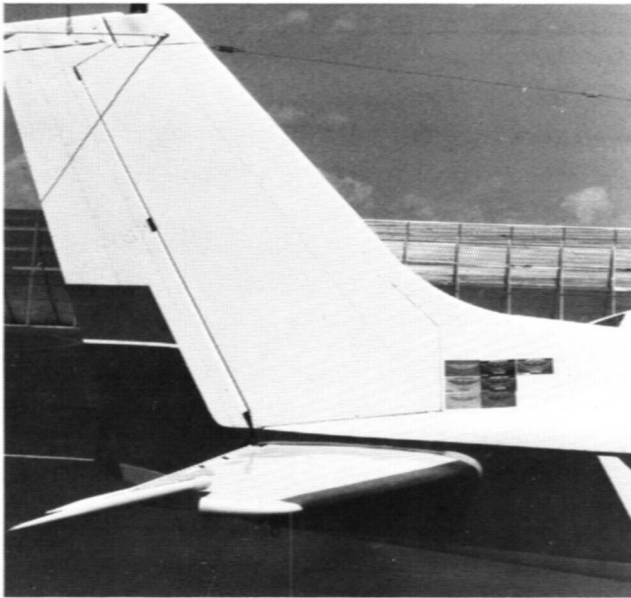
An important change to State aircraft registration law was enacted in May, 1990. The new law eliminated the exemption from registration and tax for owners of stored aircraft, and established a tax rate of twenty dollars per stored aircraft, retroactive to January 1, 1990. The division is developing procedures to implement the new law.

The revenues collected are deposited in the State Aviation Fund and can only be used for construction, development, and improvement of publicly owned airports throughout the State.

The aviation revenue section works very closely with law enforcement agencies. The division's registration records are useful in determining true ownership as well as historical background of an aircraft. The section has developed a reputation nationwide for having the most current ownership information available. Some of the agencies which use the information include the Federal Bureau of Investigation (FBI), Drug Enforcement Administration (DEA), Department of Public Safety (DPS), Internal Revenue Service (IRS), National Narcotics Border Interdiction System (NNBIS), sheriff's offices and local city police departments. The on-line automated

CALENDAR YEAR 1989	
AIRCRAFT REGISTERED: 5,725	
LAND PLANE	4,603
EXPERIMENTAL	286
ROTORCRAFT	157
BALLOON	177
GLIDER	112
ANTIQUE	144
AGRICULTURAL	128
MILITARY SURPLUS	118

Table 3



records system has proven very beneficial to law enforcement agencies. Through the Arizona Department of Public Safety computers, these agencies now have access to aircraft registration records twenty-four hours a day. All correspondence and forms are processed with the division's microcomputers.

Registration information is available to consultants, engineering firms and various planning groups for airports planning as well as forecasting for future development. Aircraft registration information is also provided to airports to assist in identifying aircraft and owners when necessary.

This section closely monitors the State Aviation Fund revenues. The Aviation Fund receives revenue from a variety of sources including:

- a. Flight property taxes paid by scheduled airlines
- b. Aviation fuel taxes - \$.05 per gallon;
- c. Aircraft lieu tax and registration fees on non-airline aircraft;
- d. Revenues from the operation of Grand Canyon National Park Airport; and
- e. Aviation funds on deposit invested by the State Treasurer.

STATE AVIATION FUND - REVENUE SOURCES FY1989-90

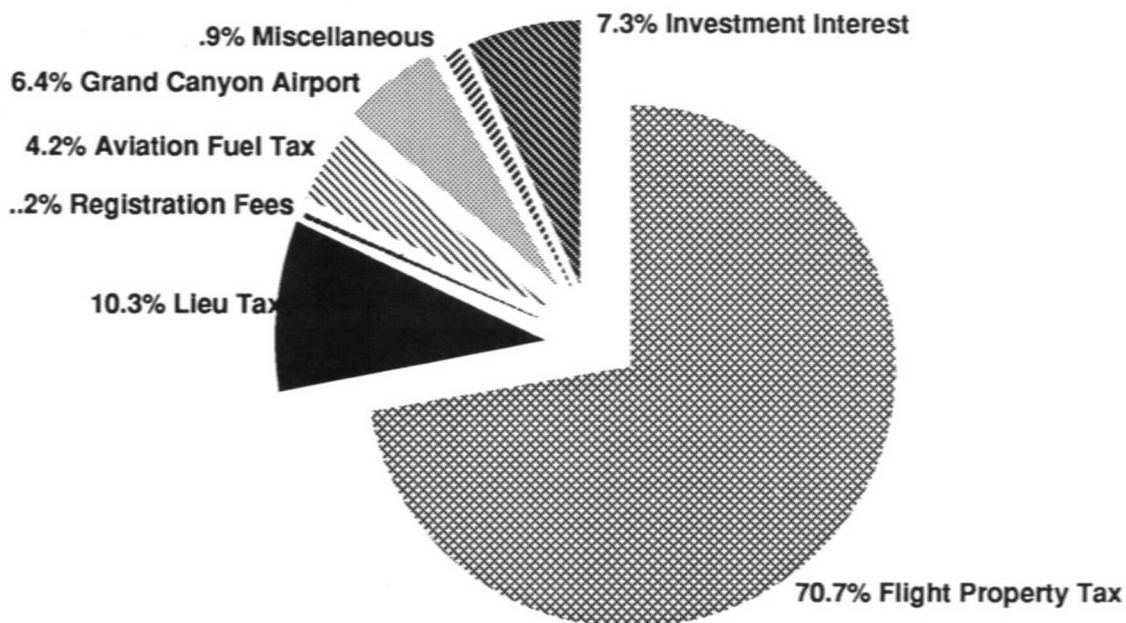


Figure 2

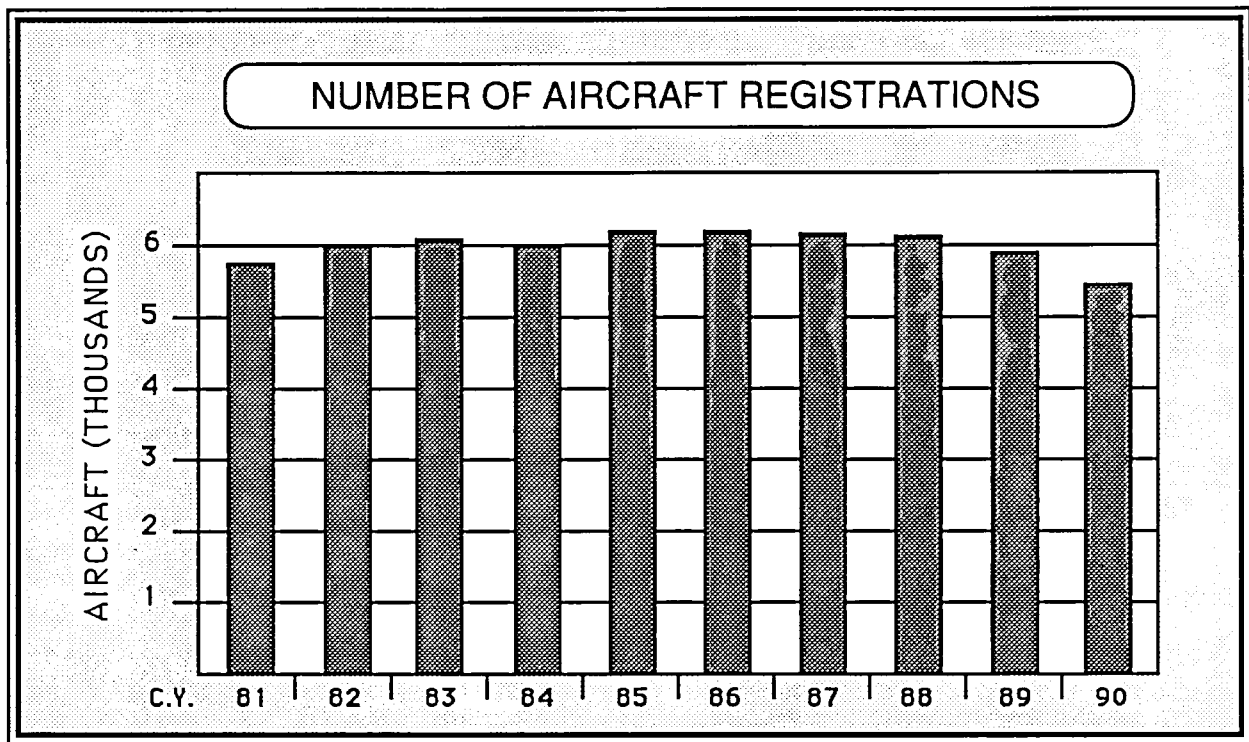


Figure 3

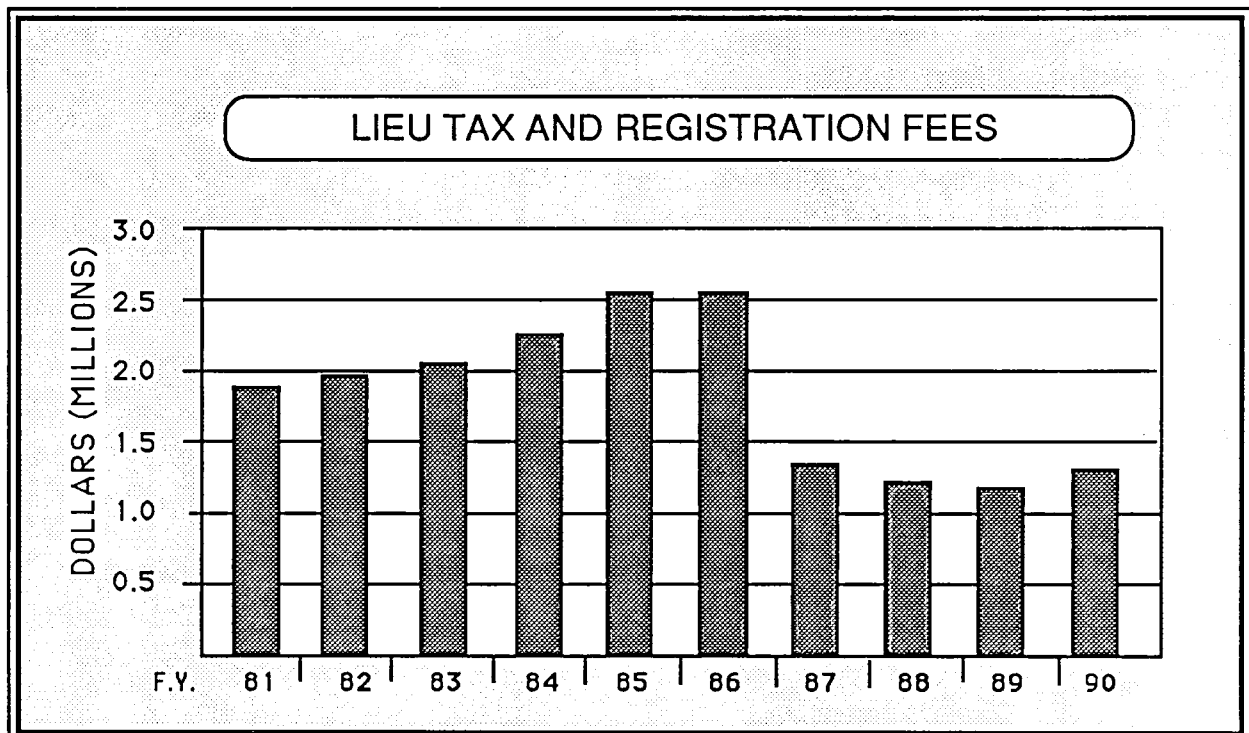


Figure 4

Table 4

AIRCRAFT REGISTRATION DATA

<u>FISCAL</u> <u>YEARS</u>	<u>*AIRCRAFT</u> <u>REGISTERED</u>	<u>AIRCRAFT</u> <u>LIEU TAX</u>	<u>AIRCRAFT</u> <u>REG. FEE</u>	<u>PENALTY</u>	<u>INTEREST</u>	<u>TOTAL REV.</u> <u>TAX & REG</u>
66-67	1,386		5,132			5,132
67-68	1,541		5,037			5,037
68-69	1,795	103,528	8,818			112,346
69-70	2,135	105,058	10,876			160,930
70-71	2,499	160,731	12,248			172,979
71-72	2,945	210,202	15,238			225,440
72-73	3,283	239,821	16,308			256,129
73-74	3,463	424,776	18,641			443,417
74-75	3,487	468,546	19,590			448,136
75-76	4,073	511,330	19,585			530,915
76-77	4,372	699,569	22,213	15,510	2,864	740,156
77-78	5,131	941,568	23,129	9,295	1,668	980,791
78-79	5,289	1,264,776	24,972	10,800	1,409	1,301,957
79-80	5,403	1,608,107	26,156	19,372	5,123	1,658,757
80-81	5,846	1,851,033	27,460	18,662	8,374	1,905,649
81-82	6,009	1,904,154	27,276	19,764	9,210	1,960,405
82-83	6,062	1,949,822	28,210	25,807	15,267	2,019,106
83-84	6,000	2,194,838	29,138	24,268	16,311	2,264,555
84-85	6,159	2,521,643	29,200	21,900	16,892	2,589,635
85-86	6,162	2,567,490	30,116	21,940	10,285	2,597,606
86-87	6,150	1,297,328	28,650	19,265	10,144	**1,355,387
87-88	6,133	1,162,980	27,500	20,894	10,662	1,222,036
88-89	5,969	1,121,900	26,100	13,500	9,700	1,171,200
89-90	5,754	\$1,288,750	\$24,750	\$18,060	\$8,451	\$1,340,012

SOURCES: AERONAUTICS DIVISION—ARIZONA DEPARTMENT OF TRANSPORTATION

*Calendar Year Data

**Decrease in revenue reflects tax reform legislation cutting tax rate in half.

Table 5

HISTORICAL AVIATION FUEL TAX DATA

<u>FISCAL YEARS</u>	<u>GALLONS OF FUEL</u>	<u>1c/GAL AV FUEL TAX</u>	<u>5c/GAL AV FUEL TAX</u>	<u>UNCL/UNREF AV FUEL TAX</u>	<u>TOTAL FUEL TAX REVENUE</u>
66-67	5,766,744			\$106,791	\$106,791
67-68	5,828,129			\$107,935	\$107,935
68-69	5,798,436			\$102,283	\$102,283
69-70	5,331,384	\$34,528		\$105,996	\$140,524
70-71	5,818,298	\$59,367		\$110,462	\$169,829
71-72	6,144,510	\$60,307		\$107,932	\$168,239
72-73	5,885,395	\$59,395		\$126,475	\$185,870
73-74	6,444,930	\$64,207		\$130,815	\$195,022
74-75	6,871,623	\$69,781		\$143,084	\$212,865
75-76	7,075,481	\$68,343		\$174,982	\$243,325
76-77	9,577,534	\$72,506		\$186,152	\$258,658
77-78	9,541,147	\$69,926		\$213,890	\$283,816
78-79	8,159,000	\$85,159		\$254,113	\$339,272
79-80	9,054,499	\$90,545		\$252,089	\$342,634
80-81	12,453,322	\$124,533		\$317,742	\$442,275
81-82	11,228,545	\$112,285		\$268,315	\$380,600
82-83	8,482,597	\$84,826		\$229,812	\$314,638
83-84	8,227,983	\$82,279		\$284,747	\$367,026
84-85	7,637,721	\$76,377		\$305,734	\$382,111
85-86	6,471,370	\$64,714		\$336,316	\$401,030
86-87*	8,202,591	\$11,900	\$350,629	\$81,779	\$444,308
87-88**	8,929,382	\$0	\$306,774	\$0	\$306,774
88-89	10,276,177	\$0	\$502,765	\$0	\$502,765
89-90	10,610,226	\$0	\$530,511	\$0	\$530,511

* As of August 13, 1986—AvGas Tax was increased from .01¢ per gallon to .05¢ per gallon.

** As of August 18, 1987—AvGas Refunds were eliminated except for aerial applicators.



AVIATION SAFETY AND EDUCATION

RESPONSIBILITIES

The Aviation Safety and Education Section is responsible for the dissemination of aviation information, air safety, aerospace education, and monitoring aviation regulations. Duties include planning, organizing and conducting aviation safety seminars.

INFORMATION EXCHANGE

The Section monitors regulatory proceedings. The aviation field representative reviews press releases, monthly magazines and newsletters to stay in touch with aviation safety, regulatory, and industry developments. Many of these periodicals are organized and retained in an aviation reference library. The section handles calls, letters, and other contacts from the general public and aviation interests each year. Information is provided on the spot, research is initiated, and referrals are made to other sources having additional specific expertise.

AVIATION SAFETY ADVISORY GROUP

The Section is also a member of the Aviation Safety Advisory Group. This group, whose members represent various aviation users, provides input to the FAA Accident Prevention Program, and conducts a yearly Flight Instructor/A & P Mechanic of the Year awards banquet.



AVIATION EDUCATION COUNCIL OF ARIZONA

The section was instrumental in the establishment of the Aviation Education Council of Arizona during FY1989. The council's purpose is to encourage and coordinate aviation education activities on a statewide basis. Members include ADOT, FAA, educational institutions, America West Airlines, and other interested organizations. During the past year, the council and its members received FAA awards for excellence in aviation education. It also assisted in maintaining the Aviation Education Resource Center at Embry Riddle Aeronautical University.

ACTIVITIES

Safety and education efforts during 1989-90 concentrated on continuing the safety seminar program; assisting in the FAA 5010 Airport Master Record inspection program; assisting with the State Aviation System Plan; and membership on the Arizona Aviation Week organizing committee.

Assigned personnel also act as a resource for other sections within the Aeronautics Division.

data collection, planning and analysis is provided on special projects. The Aviation Field Representative is designated as division pilot, to arrange and conduct air transportation when required. Regulatory and navigation data are kept current and available. FAA airspace studies are researched and comments provided. A library of video tapes is maintained and is being expanded to meet aviation education needs.

PUBLICATIONS

Aviation is the official publication of the Arizona Department of Transportation, Aeronautics Division and is distributed periodically to Arizona aircraft owners, aviation organizations, and others by request. The purpose of this publication is to disseminate information on division activities emphasizing airport development projects, news from and events

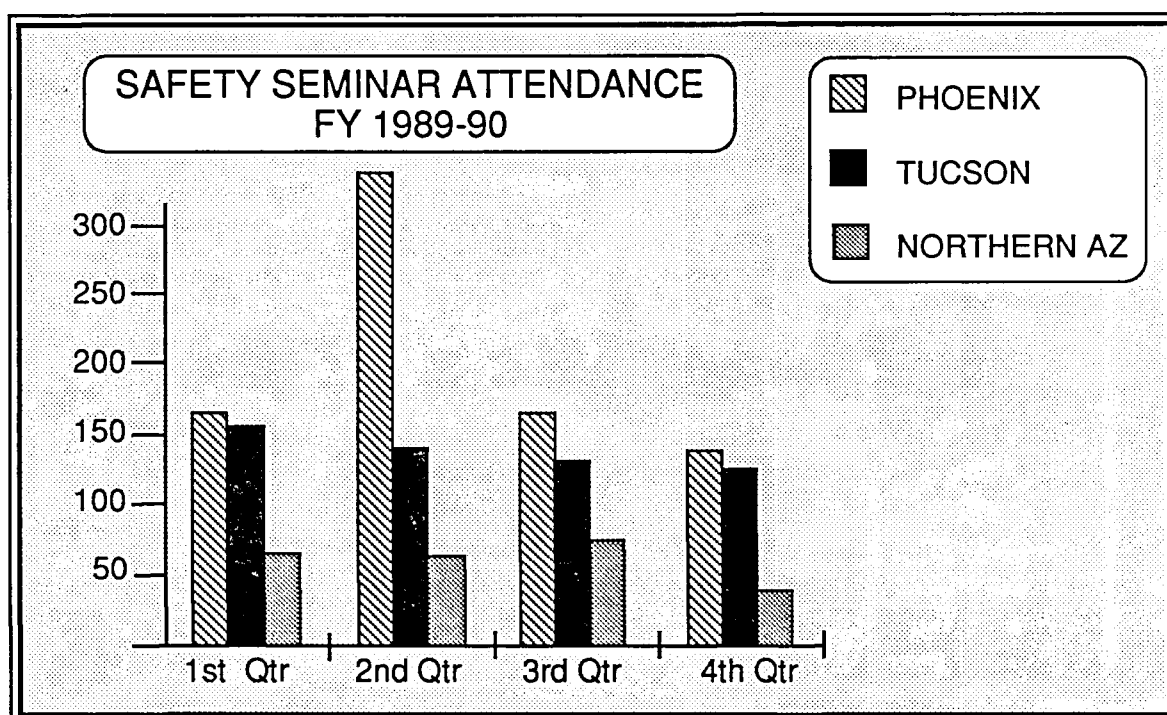


Figure 5

SAFETY SEMINARS

The Division has continued to co-sponsor, with personnel and financial support, the quarterly aviation safety seminars in Phoenix, Tucson and Prescott/ Flagstaff. As the chart in figure 5 indicates, attendance and interest remain high. Speakers from widely varying backgrounds with diverse areas of expertise are featured along with regional spokespersons. They provide continuing education for pilots, answer questions from the audience, and encourage maintenance of pilot proficiency and responsibility. In June, the Division participated in a new commercial aviation safety seminar, and will serve on the commercial aviation safety advisory board.

of local aviation organizations, safety-oriented features, regulatory and procedural updates, features of interest to Arizona aviators, and national news affecting aviation.

The Annual Progress Report is a composite of the activities of the Aeronautics Division over the preceding fiscal year.

Helicopter Facts is a booklet providing basic information about helicopters and how they fly. It is designed as an education tool for use during helicopter displays, and is provided on request to individuals or groups.

The Arizona Aeronautical Chart, out of print since 1985, was funded by the legislature and will resume publication in FY 1990-91.

GRAND CANYON NATIONAL PARK AIRPORT

The Aeronautics Division is responsible for the maintenance, operation and improvements of the only active State-owned airport in Arizona. The Airport is located seven miles from the south rim, and was originally constructed with funds from the Department of Interior, the Federal Aviation Administration and the State of Arizona. The airport first opened in October, 1965. It was completed and formally dedicated in October, 1967.

Today, it is the third most active air carrier airport in the State following Phoenix Sky Harbor and Tucson International. The airport is served by over 40 air taxi and commuter carriers. Annual aircraft operations increased during the year to 152,002 and the total number of passengers for 1989-90 is estimated to be 760,010.

The airport is operated by a staff of ten full time



employees of the Aeronautics Division, under the supervision of the airport manager.

A new economic impact study, prepared for ADOT by the Economic Outlook Center of Arizona State University, estimates the impact of Grand Canyon National Park Airport as providing 730 jobs, and total economic activity of \$45 million in Coconino County.

Progress was made on a major improvement program for the airport. A new airport master plan (still in process) serves as the basis for the program, which includes a new high speed runway exit to increase airport capacity, a commercial heliport complex, access roads, automobile parking, and a new passenger terminal. The utilities system was converted to an all electric system, and design work begun for the runway exit, heliport complex and roadway system.



Table 5

**GRAND CANYON NATIONAL PARK AIRPORT
REVENUE AND EXPENDITURES
AIRCRAFT OPERATIONS AND PASSENGERS ENPLANED**

	1985-86	1986-87	1987-88	1988-89	1989-90
REVENUE	\$65,750	\$51,630	\$69,500	\$526,000	\$807,620
EXPENDITURES					
Full Time Employees	0	0	0	10	10
Personal Services	\$0	\$0	\$0	\$155,430	\$165,860
Employee Related Expenses	\$0	\$0	\$0	\$39,390	\$44,110
Professional Services	\$0	\$0	\$0	\$0	\$1,110
Travel	\$0	\$0	\$0	\$3,140	\$3,200
Other Operating Expenses	\$2,600	\$6,550	\$0	\$175,960	\$193,330
Capital Equipment	\$0	\$0	\$0	\$2,020	\$29,420
TOTAL EXPENDITURES	\$2,600	\$6,550	\$0	\$375,940	\$437,030
NET INCOME (LOSS)	\$63,150	\$45,080	\$69,500	\$150,060	\$370,590
CAPITAL IMPROVEMENT EXPENDITURES	\$23,340	\$287,120	\$3,167,140	\$479,560	\$228,960
AIRCRAFT OPERATIONS	92,880	100,930	130,860	141,130	152,000
Percent Increase (Decrease)	-0.2%	8.7%	29.7%	7.8%	7.7%
PASSENGERS ENPLANED	464,410	509,660	654,290	705,660	760,010
Percent Increase (Decrease)	-0.2%	9.7%	28.4%	7.9%	7.7%

Source: Arizona Department of Transportation Aeronautics Division
Unaudited Financial Records

AIRPORT DEVELOPMENT



The Airport Development Section has the following responsibilities:

- 1) Administration of the Five-Year Airport Development Program and reimbursement of sponsor expenses for eligible project items;
- 2) Technical support for airports and airport projects;
- 3) Engineering guidance for and administration of Grand Canyon Airport construction; and
- 4) Airport safety data inspections covering selected public airports.

PROGRAMMING

The planning process for the 5-year Airport Development Program begins with an extensive evaluation of needs. These needs are then prioritized among the various airport categories before inclusion in a program consistent with the criteria established by Transportation Board policy. Finally, they are evaluated and matched with anticipated funds to arrive at a financially balanced program that makes optimum use of available aviation dollars.

FUNDING

Airport construction and development in Arizona is accomplished through a cooperative effort involving three levels of government: federal, state and local. Each of these governmental units shares in the financing of airport development projects in the State. The Federal Airport Improvement Program, when viewed in dollars allocated per year, has fluctuated from year to year, but overall has almost tripled in the last decade. This is an indicator of the growth of aviation in Arizona. Figure 6 depicts this growth. While FY 1987 awards decreased, FY1988 awards rebounded to over \$32 million, and FY 1990 awards reached an all-time high of \$43.1 million.

At the local level, funds for airport development may come from several sources. General fund contributions, revenue from general obligation bonds, user taxes and revenues from airport leases and concessions are examples of the primary sources of funding. However, local communities are often unable to keep pace with their airport's needs without increased federal or state assistance. Currently, the local sponsor provides a matching share of 4.47 percent on federal/state/local projects and ten percent on state/local projects.



The State's Airport Construction Program has increased dramatically over the last ten years. This represents growth of over 500%. Grant funds awarded have increased from \$1.62 million in FY 1980 to \$9.98 million in FY 1989. Figure 7 illustrates this pattern of growth.

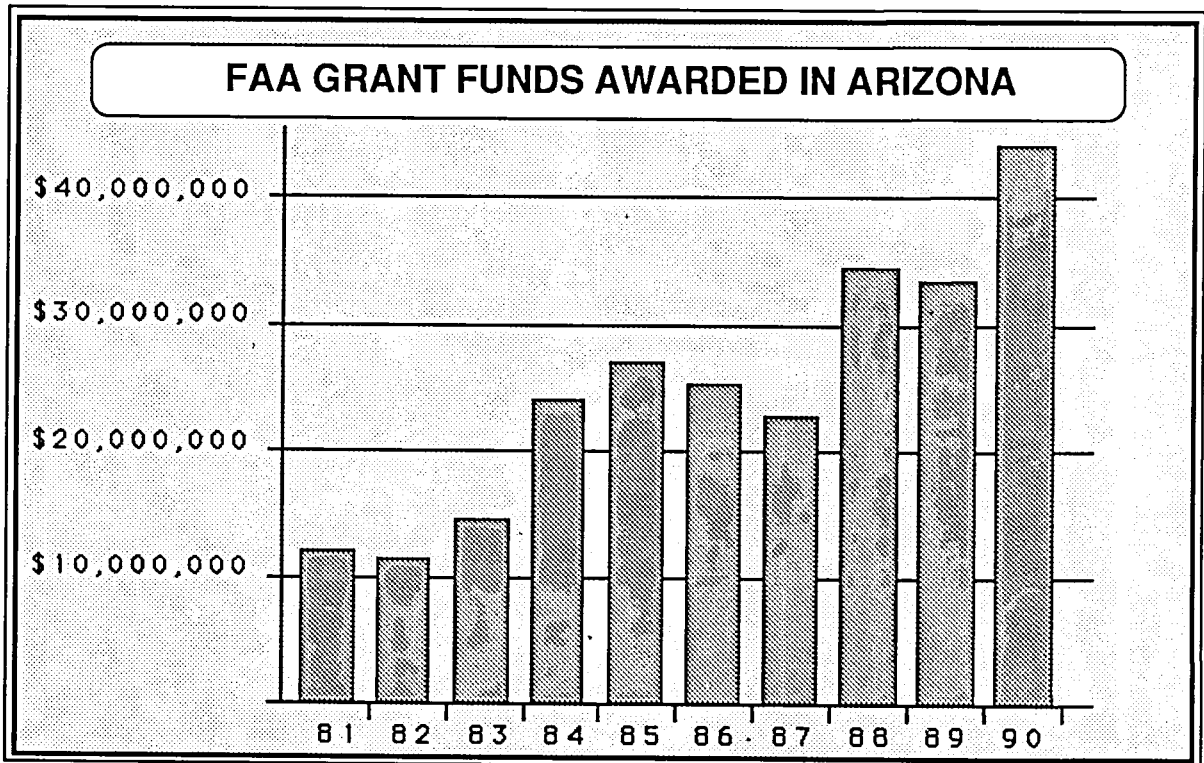


Figure 6

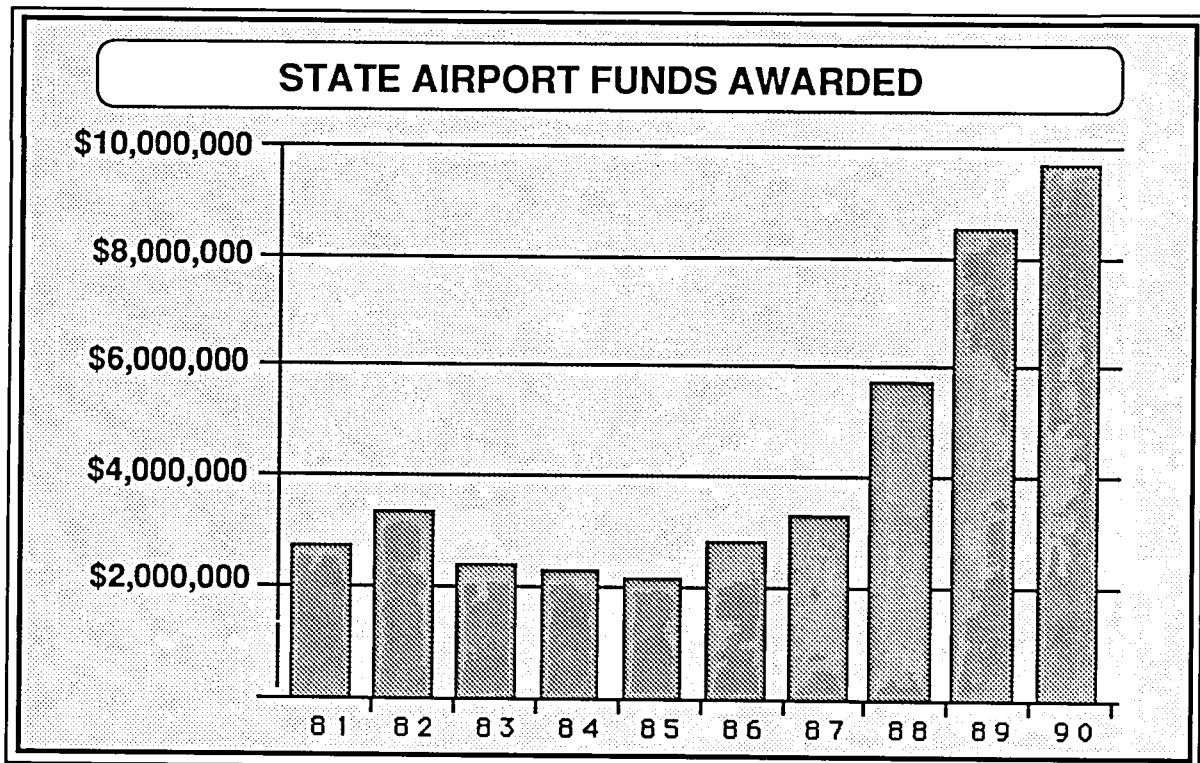


Figure 7

AIRPORT PROJECTS COMPLETED

The number of airport projects completed has remained relatively constant over the past seven years, as shown in Figure 8, with between 25 and 30 projects completed each year. The sharp increase in both State and Federal funding beginning in FY 1988 has resulted in a significant increase in the number and scope of projects in progress. The jump in number of projects completed, to 39 in FY 1990, reflects this increased funding.

As the project progresses through the construction phase, the Airport Development Section reviews bid tabulations, performs field reviews of work during construction, reviews field and laboratory procedures/test results, and analyzes and approves change orders. At the conclusion of the project, a final inspection is performed. As-built plans and certified quantities are required before final payment is made. Approximately one third of the projects are audited to ensure compliance with contractual requirements.

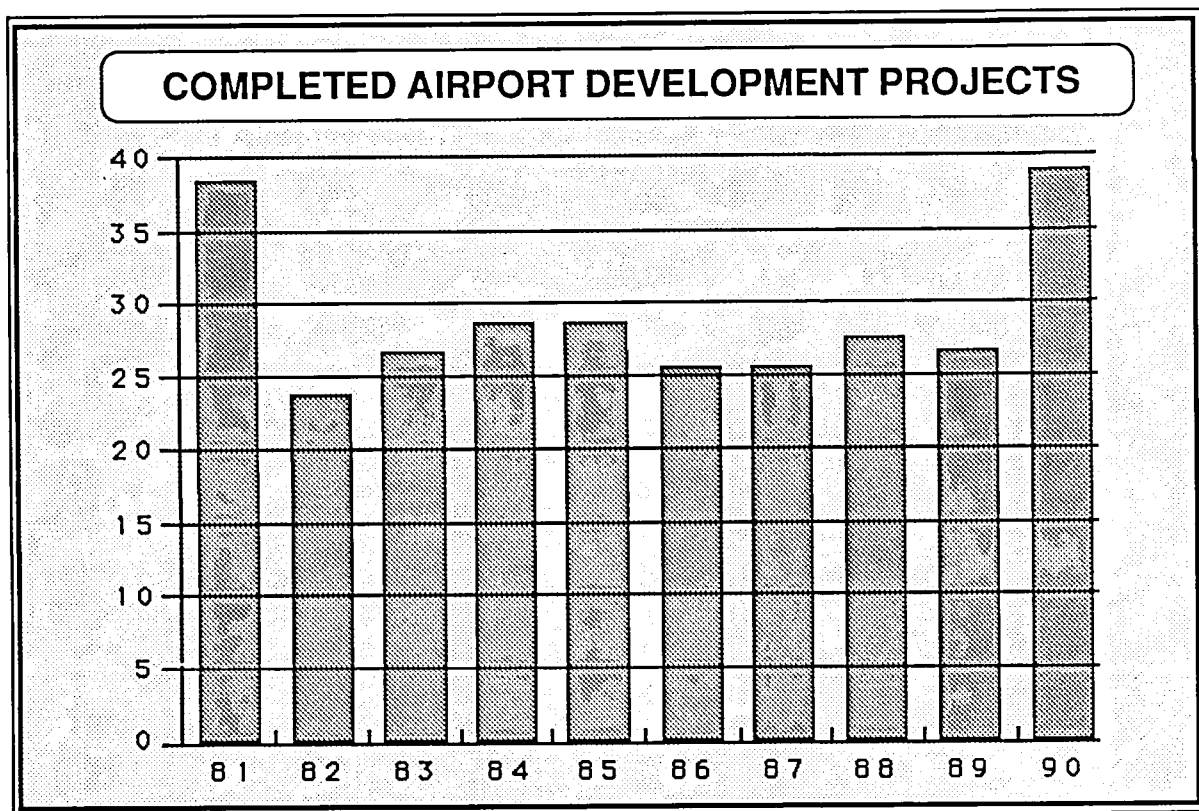


Figure 8

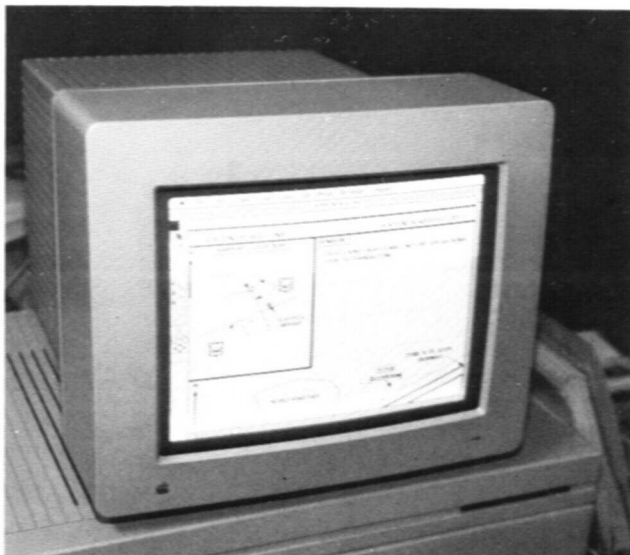
PROJECT ADMINISTRATION

Airport projects funded through the Five-Year Airport Development Program are subjected to technical review and monitoring from design through construction and audit. During the design phase, the Airport Development Section assists sponsors in evaluating and interpreting design criteria. Additional assistance is rendered by reviewing and commenting on engineering agreements, plans, specifications and contract documents for compliance with State funding requirements.

TECHNICAL ASSISTANCE

The Airport Development Section provides technical assistance to the Sponsor to assure quality construction, optimize construction costs, streamline administrative procedures through all stages of the project and assist local officials in the development of their airport facilities in a cost-effective manner.

The Airport Development Section also provides technical support for special aeronautical studies and the development of airport



plans. Local airport sponsors may, at any time, receive technical comment and operational guidance concerning improvements or development of their airports.

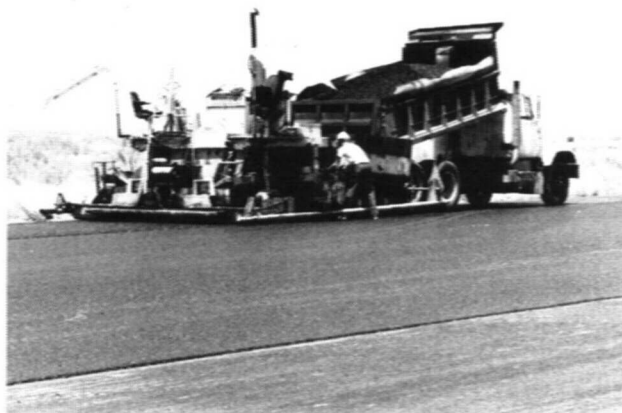
Construction costs are being decreased by encouraging the use of locally available mineral materials and specifications, rather than using nationally developed FAA specification materials which may be uneconomical. The sponsor's administrative burden is being reduced through the assistance provided by the Airport Development Section. Where possible, reporting forms and other documents already required by the Federal Government are also used for State purposes, helping reduce duplication.



GRAND CANYON AIRPORT ENGINEERING

The Airport Development Section is responsible for engineering and administering construction projects at the State-owned Grand Canyon Airport. All funding, payment and project authorizations are processed by the Airport Development Section. A consulting firm is updating the master plan and designing access roads, a heliport, a terminal, automobile parking, and utilities.

All engineering phases of construction work undertaken at the Grand Canyon Airport are either performed directly by this office or performed by consultant engineers under the supervision of the Airport Development Section.



AIRPORT SAFETY INSPECTIONS

During the year, the Airport Safety Inspection Team visited more than fifty Arizona airports. The team conducts inspections of public use airfield facilities and conditions for the FAA Airport Safety Data Program. The objectives of the program are to promote airport safety through contact with airport management; identify and report safety conditions at airports; and make recommendations to correct deficiencies. The program also provides airport information for the FAA airport data base, and for publishers of aeronautical charts and airport guides.

AIR SERVICE AND AVIATION PROGRAMMING/PLANNING

The Air Service/Aviation Planning section is responsible for assisting in the orderly development of the commercial air transportation system serving the State as well as aviation programming/planning functions. This section assists communities and airlines in aviation planning and air service matters which are of regional or statewide significance. It coordinates the development of and makes policy recommendations concerning the State's position in relation to air service legislation, administrative rulemaking and legal proceedings before the U.S. Department of Transportation (U.S.DOT), Federal Aviation Administration (FAA), or Congress. This section works with other state agencies to ensure common directions are taken in the improvement of the aviation system.

Since 1978, there have been dramatic changes brought about as a result of the Airline Deregulation Act. Prior to its enactment, the Division was active in both domestic and international route awards, along with the federal certification proceedings of Cochise and Skywest Airlines, a legal process which took more than three years.

Since that time, the section has primarily been concerned with the small communities Essential Air Service (EAS) provision of the



Airline Deregulation Act. Eight Arizona communities were assisted in the evaluation of EAS determinations from the CAB. They include Flagstaff, Grand Canyon, Kingman, Page, Prescott, Winslow, Yuma and Douglas. Prescott became one of the few EAS communities in the entire Federal program to become a self sustaining air service point. The section also monitors air passenger traffic in the State, verifying FAA's findings and coordinating the accuracy of statistical information with local airport sponsors. This information is used by FAA to allocate airport improvement funds.

Aviation planning is the joint responsibility of this section and the Transportation Planning Division. Recent studies that have been completed include: Aviation Needs Study, a legislative mandate on the performance of the State's airport transportation system; an Aircraft Counter Program which tabulated aircraft activity at 15 non-towered airports around the State; an Economic Impact Study on Aviation in Arizona; an Airport/Heliport Land Use compatibility study which provided an inventory of the State's primary airport system and a synopsis of Indian airports. These last two studies, along with a Forecast of Airport Usage and a Study of Commuter Air Service Feasibility, are incorporated into the the State Aviation System Plan (SASP). During the past year, the section participated extensively



in the State Aviation Needs Study. Several other studies/programs recently completed include: a complete automation of the SASP data; a regional airport feasibility and site selection for the Verde Valley; and the development of a microcomputer noise model for airport land use planning.

The staff continues to participate in both Maricopa Association of Governments (MAG) and Pima Association of Governments (PAG)

Regional Airport and Heliport System Plans and associated studies. Coordination of data from the MAG and PAG Regional Aviation System Plan (RASP) studies has been established to ensure proper dovetailing of findings.

The map below depicts the current routes flown by both major and commuter airlines within the boundaries of Arizona and routes from Arizona cities to adjacent states flown by regional airlines.

